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Game Design Document - Logical Economy Loops

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Logical Economy Loops

Economic Stability in Proto FusionGirl

To ensure a balanced and sustainable in-game economy, a series of interconnected loops are essential. These loops need to account for resource generation, item creation, trade dynamics, and consumption, all while tying into player progression and engagement. Below is a detailed plan for logical economy loops to keep the game stable:

Core Economy Loops

A. Resource Loop

Purpose:

- *Supply the base materials required for crafting, upgrades, and trade.*

Flow:

1. *Players gather resources through missions, exploration, and events.*
2. *Resources are categorized by tier (common, rare, epic) to limit supply and drive demand.*
3. *Resources are consumed in crafting, trading, or faction donations.*

Balance Mechanism:

- *Introduce decay rates for certain resources to avoid hoarding.*
- *Ensure common resources regenerate in missions but limit the availability of rare ones to create scarcity.*

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B. Crafting and Consumption Loop

Purpose

- *Ensure continuous demand for resources and crafted items.*

Flow

1. *Players use resources to craft gear, vehicles, or upgrades.*
2. *Crafted items have utility in missions, trade, or faction contributions.*
3. *Items degrade over time or are consumed, creating a continuous need for crafting.*

Balance Mechanism

- *Implement crafting cooldowns to control item flooding.*
- *Introduce crafting failures or material waste for high-tier recipes to maintain resource value.*

C. Trade Loop

Purpose

- *Drive player-to-player interaction and economy fluidity.*

Flow

1. *Players trade resources, crafted items, and NFTs through the multiversal market.*
2. *Supply and demand influence dynamic pricing.*
3. *Trading fees in Multiversal or Omniversal Karma stabilize the economy and prevent runaway wealth accumulation.*

Balance Mechanism

- *Dynamic pricing algorithms to adjust values based on rarity and player activity.*
- *Seasonal trade events to redistribute high-demand resources.*

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D. Progression Loop

Purpose

- *Tie economic activities to player advancement.*

Flow

1. *Players earn Universal Karma through missions and basic trades.*
2. *Universal Karma converts to Multiversal Karma when engaging in inter-reality missions or trading rare items.*
3. *Multiversal Karma unlocks access to high-tier crafting recipes or rare NFTs.*
4. *Omniversal Karma is earned only through significant milestones or faction contributions.*

Balance Mechanism:

- *Conversion rates are designed to slow hyper-progression.*
- *Omniversal Karma has capped earning opportunities to maintain its rarity.*

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Secondary Economy Loops

A. Faction Contribution Loop

- **Purpose:** Encourage collaboration and create resource sinks.
- **Flow:**
 - Players contribute resources, items, or currency to their chosen faction.
 - Faction contributions improve faction power and unlock exclusive benefits for members.
 - Factions compete for control of multiversal zones or ley lines, creating cyclical competition.
- **Balance Mechanism:**
 - Faction influence resets periodically (e.g., seasons) to prevent domination.
 - Introduce diminishing returns for over-contributions to discourage resource dumping.

B. Event Loop

- **Purpose:** Drive short-term engagement and resource circulation.
- **Flow:**
 - Periodic events introduce unique challenges requiring specific items or resources.
 - Players trade, craft, or complete missions to meet event goals.
 - Event participation rewards rare items, NFTs, or faction benefits.
- **Balance Mechanism:**
 - Events rotate item demands to ensure diverse resource use.
 - Time limits prevent event exploitation.

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Player-Driven Economy Loops

A. NFT Market Loop

- **Purpose:** Integrate blockchain mechanics with in-game economy.
- **Flow:**
 - Players trade NFTs (gear, vehicles, game worlds) in a player-driven market.
 - NFTs evolve or increase in value through use or rarity.
 - The game charges transaction fees in Karma currencies, creating a revenue sink.
- **Balance Mechanism:**
 - Limit NFT minting to prevent oversaturation.
 - Introduce exclusive NFTs with seasonal or milestone-based availability.

B. Customization Loop

- **Purpose:** Encourage continuous spending and engagement.
- **Flow:**
 - Players purchase or trade for mods and upgrades to enhance items.
 - Upgraded items improve performance or aesthetic appeal.
 - Customizations degrade or reset over time, requiring reinvestment.
- **Balance Mechanism:**
 - Time-gated customization resets to avoid over-customization.
 - Introduce diminishing returns on repeated upgrades for the same item.

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Anti-Exploitation Measures

1. Inflation Control:

- Cap resource yields per mission or event.
- Introduce material decay to avoid stockpiling.

2. Wealth Redistribution:

- High-value trades and crafting consume large amounts of Karma currencies.
- Periodic wealth resets or taxation mechanics (e.g., market fees).

3. Resource Scarcity:

- Rotate high-demand items through events and seasonal content.
- Limit rare item generation to ensure demand.

4. Community Moderation:

- Player-driven governance for the trade market to regulate scams or monopolies.
- Game moderation to prevent item duplication or exploitative trading.

Synergy with Narrative and Progression

Economy as a Narrative Tool:

- Tie resource generation and faction contributions into story arcs.
 - **Example:**
 - A faction requires rare resources to stabilize a collapsing reality.
 - **Progression Integration:**
 - Higher-tier crafting and trading are gated by player level or milestone achievements.
 - *Omniversal Karma unlocks endgame content tied to narrative climax events.*